

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed March 9, 2005. Claims 1, 3-9, 11, and 12 remain pending in the present application. Claims 1 and 12 have been amended herein.

In the Office Action, pending claims 1, 3, 7, 11 and 12 have been preliminarily rejected as being anticipated under 35 U.S.C. § 102(b). In addition, pending claim 5 has been preliminarily rejected as being unpatentable under 35 U.S.C. § 103(a). Further, pending claims 1, 3-9, 11, and 12 have been preliminarily rejected under 35 U.S.C. § 112, first paragraph. The Applicant respectfully traverses all of the rejections of the Office Action. Reconsideration and allowance of the subject application and presently pending claims 1, 3-9, 11, and 12 is respectfully requested.

I. Response To Objection

In the Office Action the specification has been preliminarily objected to as allegedly failing to provide proper antecedent basis for the claimed subject matter of the variable impedance component being at least one of a compressor or a limiter as specified in claims 1 and 12. In response, the Applicant respectfully submits that insertion of the abovementioned language in claims 1 and 12 is not the introduction of new matter into the specification. As an example, page 3, lines 1-2 read, "[T]he variable impedance component may, for example, be a compressor and/or a limiter." In addition, page 4, lines 1-5 read, "[T]his DC voltage is applied to control attenuation in compressor/limiter circuit 14. Circuit 14 may be any of a variety of circuits currently available which perform this function in prior art speaker overload

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control or protection circuits and converter 26 may also be a standard circuit appropriate for use with the circuit 14. Circuit 14 may also be a voltage controlled variable resistor."

As shown above, in at least the above-mentioned portions of the original patent application, for the claimed subject matter of the variable impedance component being at least one of a compressor or a limiter, as specified in claims 1 and 12, proper antecedent basis for the claimed subject matter is provided.

In addition to the above-mentioned, for clarification purposes, and not due to objection to the specification, the Applicant has amended claim 1 and claim 12.

II. Response to Claim Rejections Based on 35 USC §112

In the Office Action, claims 1, 3-9, 11 and 12 have been preliminarily rejected as failing to comply with the written description requirement. The Office Action reads that the specification as originally filed fails to disclose the variable impedance component as specified in claim 1 and the variable impedance component is at least one of a compressor and a limiter as specified in claim 12.

First, for clarification purposes, and not due to rejection of claims 1, 3-9, 11, and 12, the Applicant has amended claims 1 and 12. Second, in response to the rejection, the Applicant respectfully submits that the variable impedance component and the variable impedance component being one of a compressor and a limiter is described in the detailed description of the presently pending patent application in enough detail so that one having ordinary skill in the art would understand what is an example of a variable impedance component and how it may be implemented. As an example, page 3, lines 1-2 read, "[T]he variable impedance component may, for example, be a compressor and/or a limiter." In

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addition, page 4, lines 1-5 read, "[T]his DC voltage is applied to control attenuation in compressor/limiter circuit 14. Circuit 14 may be any of a variety of circuits currently available which perform this function in prior art speaker overload control or protection circuits and converter 26 may also be a standard circuit appropriate for use with the circuit 14. Circuit 14 may also be a voltage controlled variable resistor."

III. Response To Claim Rejections Based On Anticipation

In the Office Action, claims 1, 3, 7, 11 and 12 have been preliminarily rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,969,195 to Noro (hereinafter "Noro"). For a proper rejection of a claim under 35 USC§102(b), the cited reference must disclose all elements/features/steps of the claim. See, *e.g.*, *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 7 USPQ2d 1129 (Fed. Cir. 1988).

A. Claim 1

Amended independent claim 1 reads:

A thermal overload and resonant motion control circuit for an audio speaker having a driver, where the audio speaker is driven by a drive signal from an amplifier, the circuit including:

a feedback signal generating (fsg) circuit for generating a feedback signal, said **feedback signal being an absolute difference between a proportion of a drive voltage and a proportion of a drive current**; and

an attenuator operable in response to said feedback signal for controlling said drive signal, wherein said feedback signal is given by $f(a_i, b_v)$, where i and v are drive currents and drive voltage respectively for said drive signal, and where a and b are percentages of i and v respectively utilized by said fsg circuit and wherein said attenuator includes a converter which receives said feedback signal and generates a DC output which is a selected function of the received feedback signal, and **a variable attenuator component through which one of the input and output of said amplifier is applied**, said DC output being applied to control the **level of said variable attenuator component, wherein**

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said drive signal is related to motion of said driver and said drive current.

(Emphasis Added)

The Applicant respectfully submits that Noro fails to disclose at least the above-emphasized elements of claim 1. Specifically, Noro fails to disclose a feedback signal generating (FSG) circuit for generating a feedback signal, where the feedback signal is **an absolute difference** between a proportion of a drive voltage and a proportion of a drive current. This specific element of claim 1 is clearly not disclosed by Noro. In addition, Noro fails to disclose a variable attenuator component through which one of the input and output of the amplifier is applied, where a DC output, which is a selected function of the above-mentioned received feedback signal, is applied to control the level of the variable attenuator component.

As a result of at least the above mentioned, the Applicant respectfully submits that claim 1 is allowable and allowance is respectfully requested.

B. Claims 3, 7, 11, and 12

The Applicant respectfully submits that since claims 3, 7, 11, and 12 depend on independent claim 1, claims 3, 7, 11, and 12 contain all limitations of independent claim 1. Since independent claim 1 should be allowed, as argued above, pending dependent claims 3, 7, 11, and 12 should be allowed as a matter of law for at least this reason. In re Fine, 5 U.S.P.Q. 2d 1596, 1608 (Fed. Cir. 1988).

IV. Response To Claim Rejections Based On Obviousness

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In the Office Action, pending claim 5 has been preliminarily rejected for obviousness under 35 U.S.C. § 103(a) as being allegedly unpatentable over Noro in view of U.S. Patent No. 5,734,987 to Shiono, et al. (hereafter, "Shiono"). It is well established at law that, for a proper rejection of a claim under 35 U.S.C. § 103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, e.g., In re Dow Chemical, 5 U.S.P.Q. 2d 1529, 1531 (Fed. Cir. 1988); In re Keller, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

Claim 5 depends from independent claim 1. As mentioned above, the Applicant respectfully submits that Noro fails to disclose, teach, or suggest at least the above-emphasized elements of claim 1. Specifically, Noro fails to disclose, teach, or suggest a feedback signal generating (FSG) circuit for generating a feedback signal, where the feedback signal is an absolute difference between a proportion of a drive voltage and a proportion of a drive current. This specific element of claim 1 is clearly not disclosed by Noro. In addition, Noro fails to disclose, teach, or suggest a variable attenuator component through which one of the input and output of the amplifier is applied, where a DC output, which is a selected function of the above-mentioned received feedback signal, is applied to control the level of the variable attenuator component. Shiono also fails to disclose, teach, or suggest the abovementioned elements of claim 1.

The Applicants respectfully submit that since claim 5 depends on independent claim 1, claim 5 contain all limitations of independent claim 1. Since independent claim 1 should be allowed, as argued above, pending dependent claim 5 should be allowed as a matter of law for at least this reason. In re Fine, 5 U.S.P.Q. 2d 1596, 1608 (Fed. Cir. 1988).

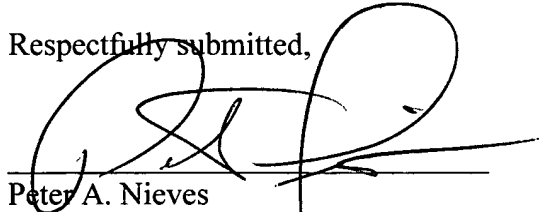
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CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, the Applicants respectfully submit that all objections and rejections have been traversed, rendered moot and/or accommodated, and that presently pending claims 1, 3-9, 11, and 12 are in condition for allowance. Favorable reconsideration and allowance of the present application and the presently pending claims are hereby courteously requested. If in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (603) 668-1400.

Respectfully submitted,


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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on July 29, 2005 at Manchester, New Hampshire.

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